

BURKA, Jan; HLAVATY, Antoni; PATYNSKI, Jerzy; SZCZEKOT, Jozef

Results of the examination of senile hips of inmates of a home
for the aged in Wejherowo. Chir.narz.ruchu ortop.polska 24 no.6:
553-559 '59.

l. Z Kliniki Ortopedycznej AM w Gdansku. Kierownik: doc.dr.
A. Senger.
(HIP pathol.)

HLAVATY, Antoni; PATYNSKI, Jerzy; SZCZEKOT, Jozef; BURKA, Jan

Analysis of clinical and radiological pictures of deforming
changes of the hip joint. Chir.narw.ruchu ortop.polska 24 no.
6:561-568 '59.

1. Z Kliniki Ortopedycznej AM w Gdansku. Kierownik: doc.dr
A. Senger. (HIP pathol.)

FACZYNSKI, Andrzej; SZCZEKOT, Jozef; DUNAJ, Weronika; WOJCIK, Tadeusz

Excessive physiological mobility of the cervical spine in
children as a cause of diagnostic difficulties. Chir. narzad.
ruchu ortop. Pol. 28 no.7:787-791 '63

1. Z Kliniki Ortopedycznej Akademii Medycznej w Gdansku
(Kierownik: doc. dr. A. Senger).

SZCZEKOWSKI, J.

POL.

3355

621.315.2.091 : 621.395.73 : 536.49

Szczekowski, J. The Effect of Temperature on the Attenuation of Cable Circuits in Poland.

"Zagadnienie wpływu temperatury na tłumienność torów kablowych w warunkach polskich". (Prace Przem. Inst. Telekom., No. 11), Warszawa, 1951, PWT, 10 pp., 10 figs., 5 tabs.

The paper deals with the problem of the influence of temperature on the attenuation of star quad cable circuits of 1.2 mm conductor diameter. The first part discusses the interdependence between temperature variations on the earth surface and those of the underground cable, and leads to determination of the anticipated limits to the variations of attenuation constant of the cable circuits under consideration. The subsequent determination of maximum variations of attenuation of national cable circuits is based on the value of temperature coefficient of attenuation computed in P.I.T., with reference to the corresponding data from foreign authors. A closer analysis of the problem leads to the conclusion that under given circumstances the A.V.C. does not appear to be necessary, while manual regulation of definite time intervals turns out to be quite sufficient. The derivation of the fundamental formulae for amplitude and delay of temperature variations of underground cable, and the derivative of the attenuation constant as regards temperature are given in the appendices.

SZCZEKOWSKI, Janusz, mgr inz.

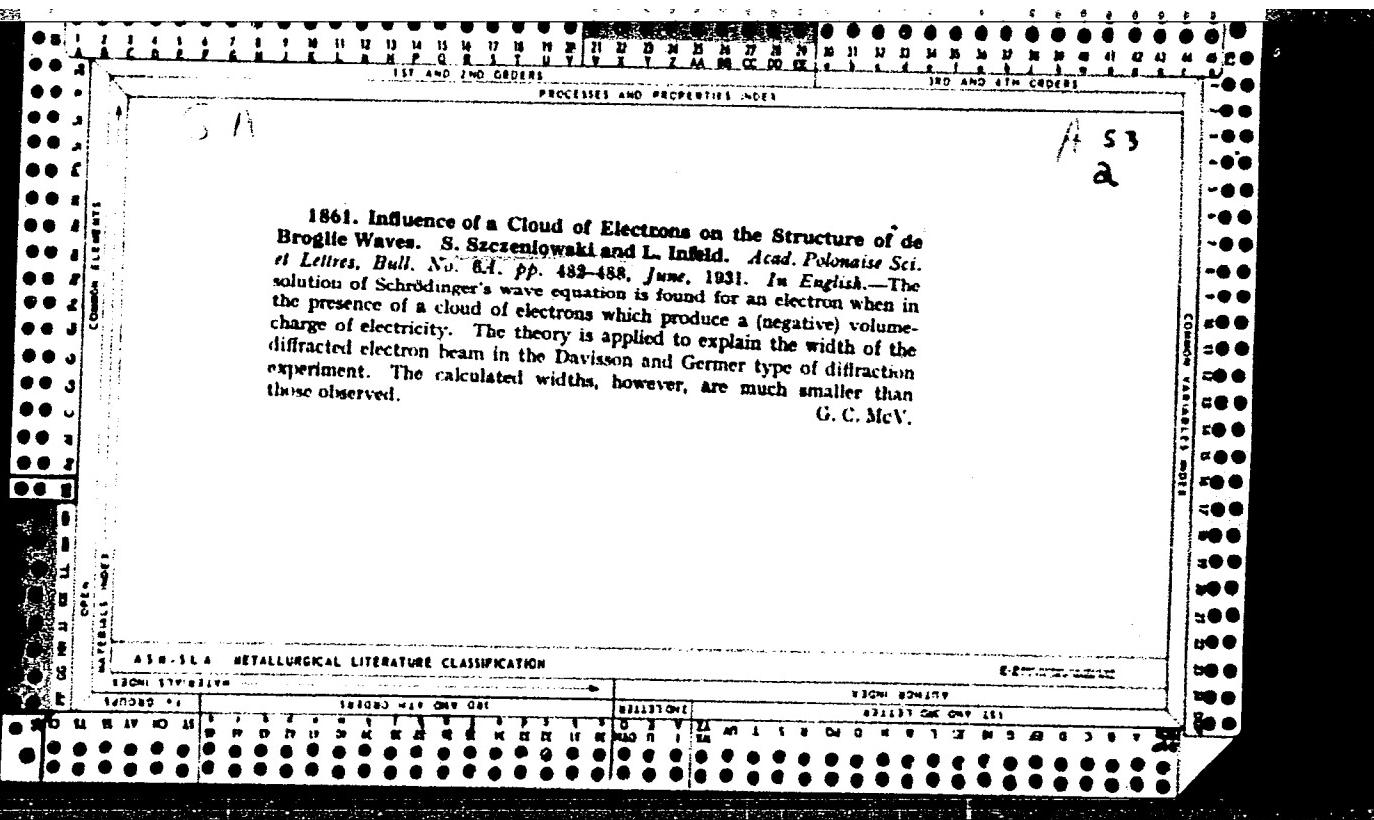
Problems of new teletransmission systems. Przegl. telekom 34 no.8:233-
236 Ag '61.

SZCZENIOWSKI, Boleslaw (Montreal, Canada)

Thermodynamic processes of mixing two different gases. Archiw
bud masz 10 no. 3: 225-237 '63.

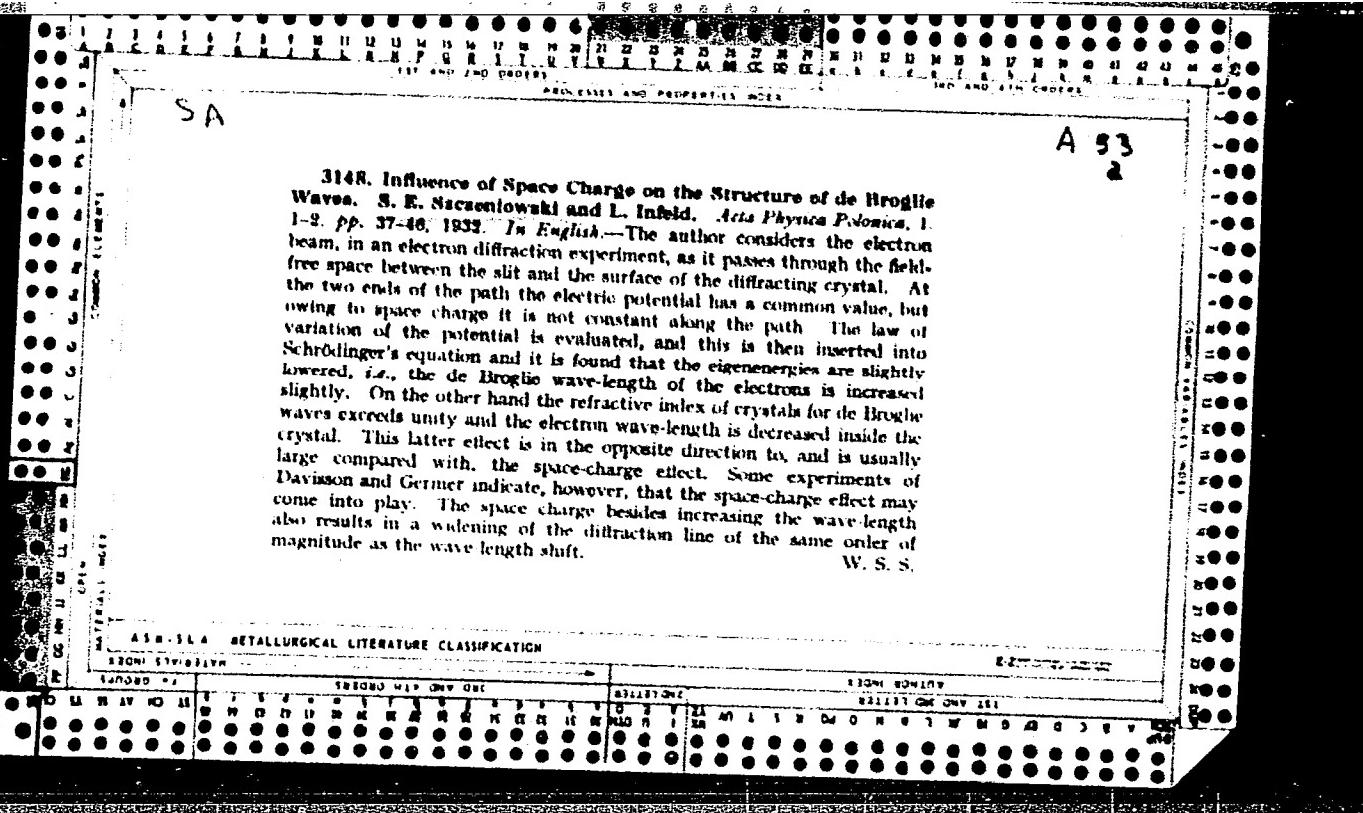
16
3
The influence of a cloud of electrons on the structure of de Broglie waves. S. SZCZERBIAWSKI AND L. INFELD. Bull. intern. Acad. Polonaise 1931A, 482 N (in English).
With the aid of Schrödinger's equation the influence of the vol. charge upon the structure of a plane de Broglie wave is discussed.

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION



APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5"



153

J386. Penetration of Electrons into the Region of Negative Energy Values. S. Baczonowski. *Acad. Polonaise Sci. et Lettres, Bull. 1-3A, pp. 21-39, Jan.-March, 1933. In German.*—The Brillouin-Wentzel method for the approximate calculation of wave functions in the one dimensional case is applied to the Dirac wave equation for electrons moving in a potential field $P(x)$ of the form:

$$P(x) = \text{constant} = P_1 \text{ for } x < x_1,$$

$$P(x) = \text{constant} = P_2 \text{ for } x > x_2 \quad (P_2 > P_1),$$

$$P(x) = \text{any monotonic increasing function of } x \text{ rising from } P_1 \text{ to } P_2$$

for $x_1 < x < x_2$.

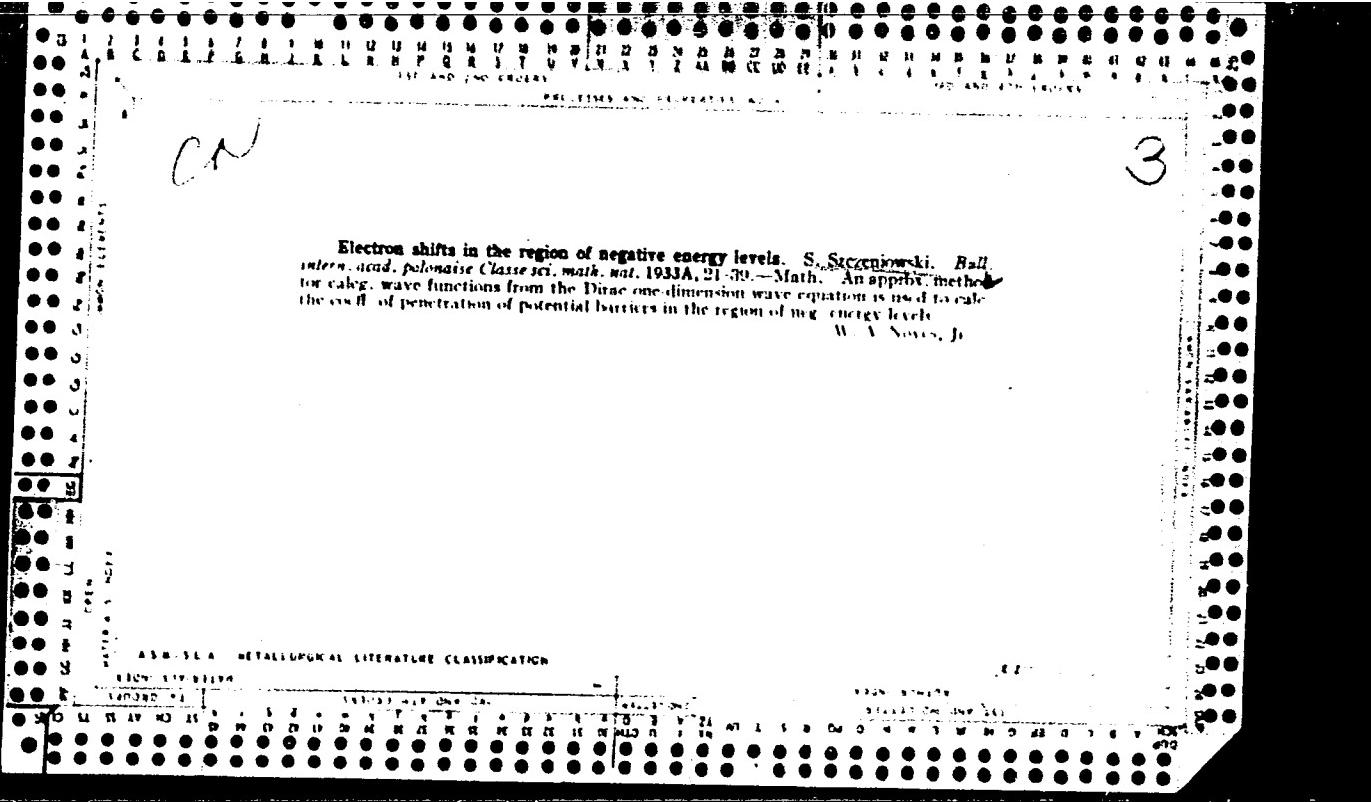
The author considers electrons moving in the direction of increasing x and having total energy W such that: $\frac{W - P_1}{mc^2} > 1$ and $\frac{W - P_2}{mc^2} < -1$.

Thus these electrons have positive energy in excess of the rest mass energy for $x < x_1$, and negative total energy for $x > x_2$. The probability that such electrons will penetrate into the region $x > x_2$ is computed and it is shown that this probability can have appreciable values only if the average rate of increase of $P(x) \sim P_2 - P_1/(x_2 - x_1)$ is sufficiently great, i.e., of the order of $2mc^2/(\hbar/mc) = 2m^2c^3/\hbar$. This confirms a general prediction due to Bohr.

W. S. S.

AIR SLA METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION	SECOND AIR DAY USE	REFERENCE	SECOND AIR DAY USE	REFERENCE
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6	7	8	9	10
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51	52	53	54	55
56	57	58	59	60
61	62	63	64	65
66	67	68	69	70
71	72	73	74	75
76	77	78	79	80
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86	87	88	89	90
91	92	93	94	95
96	97	98	99	100

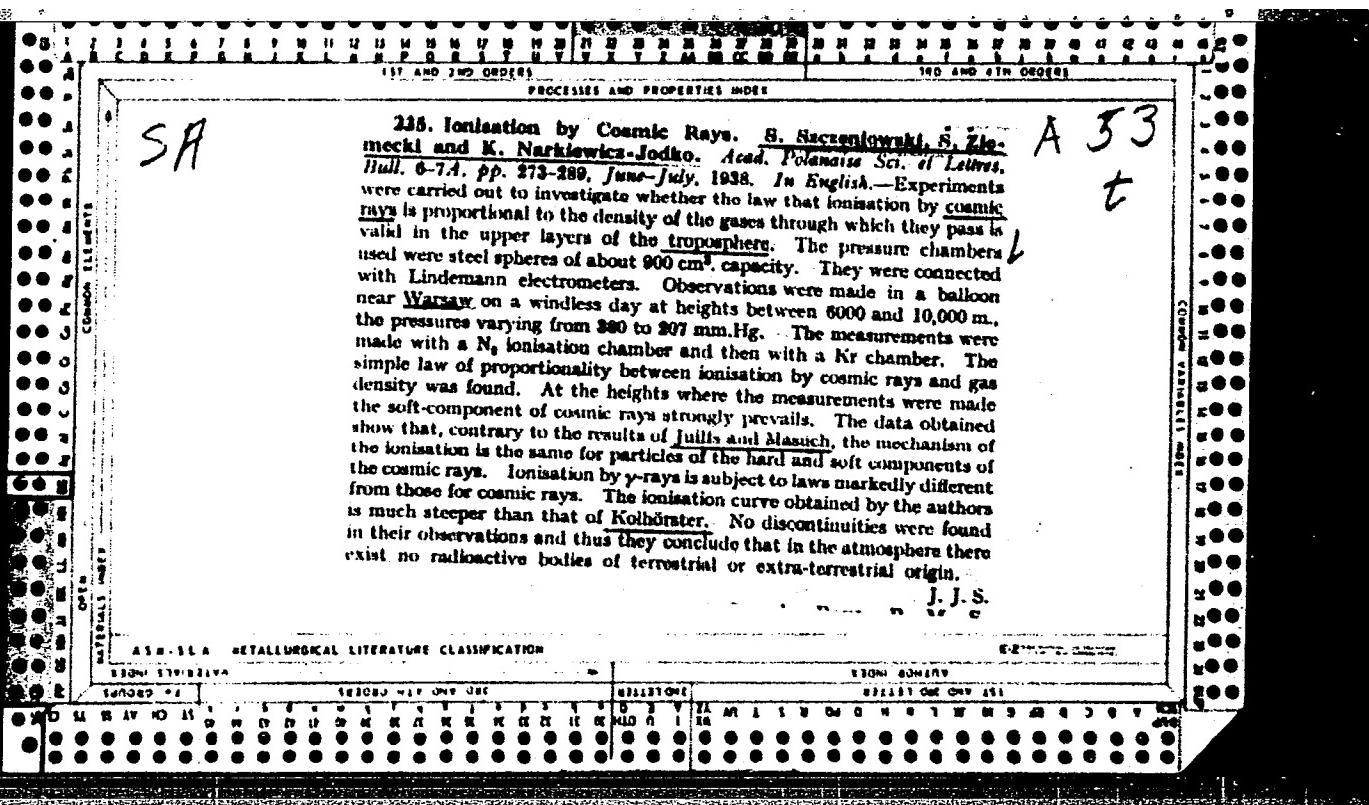


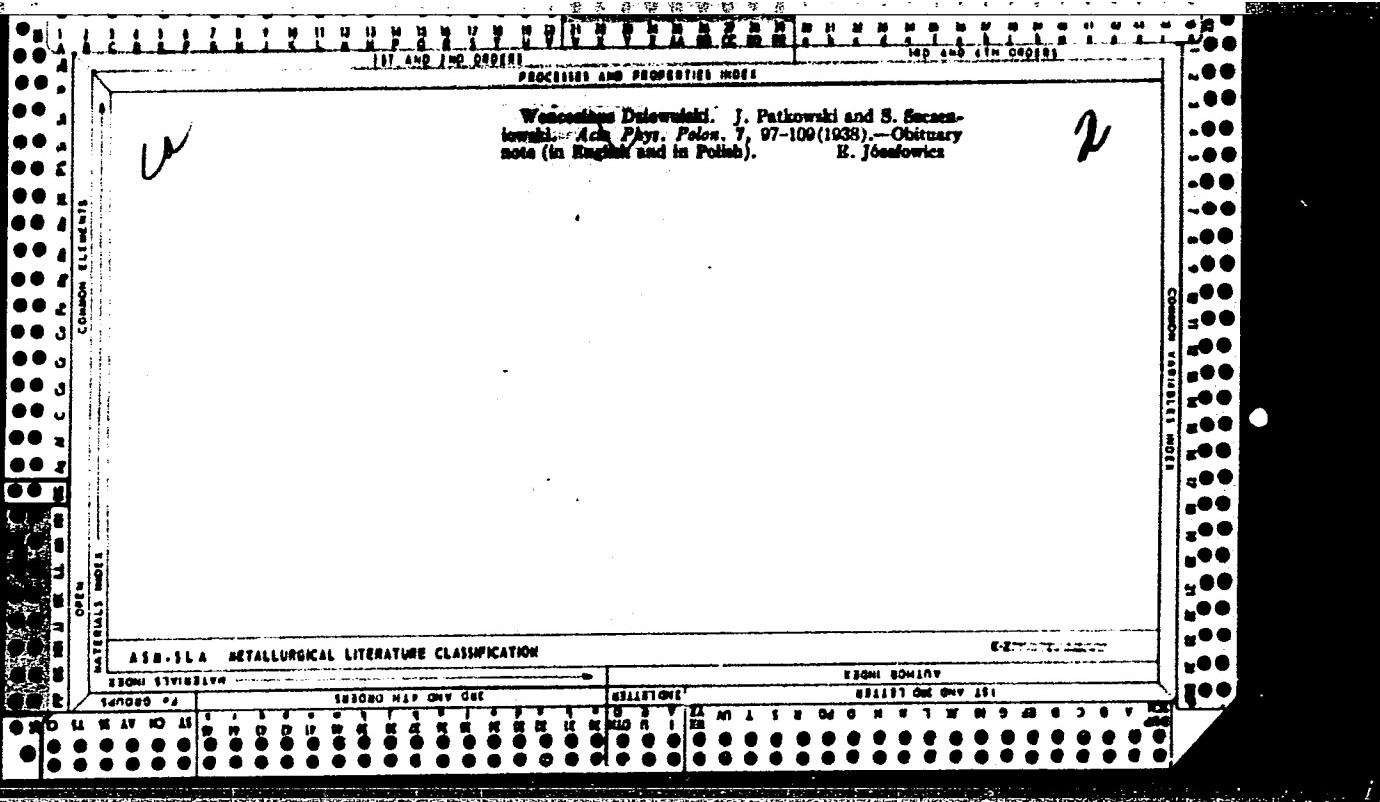
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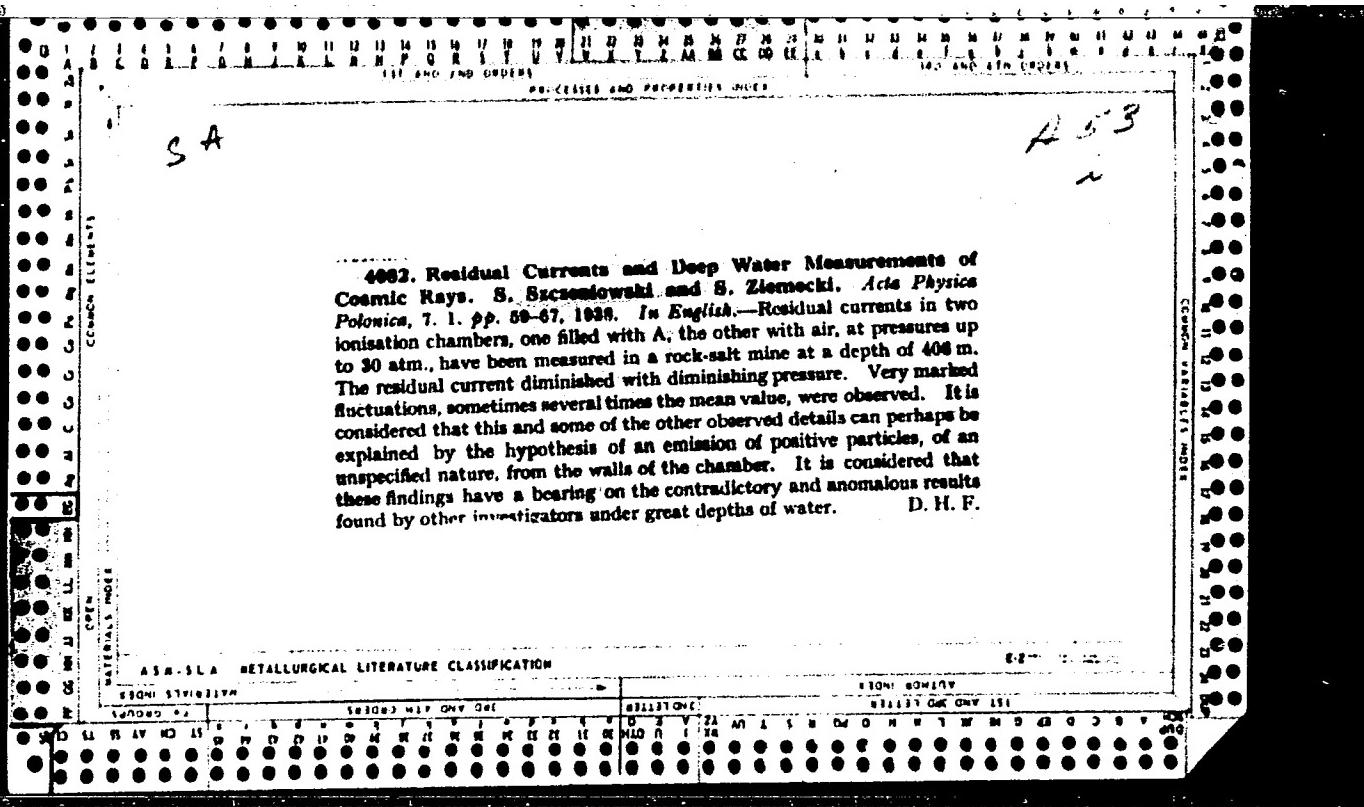
PRESSURE AND IONIZATION CURVE

Specific ionization characteristic of cosmic rays. S. Szczepanowski, St. Ziomecki and K. Nariewicz-Jelko. *Bull. intern. acad. polon. sci. (Classe sci. math. nat.)* 1938A, 273-80 (in English); cf. C. A. 32, 7339F. Expts. were carried out to investigate whether the law that ionization by cosmic rays is proportional to the density of the gases through which they pass valid in the upper layers of the troposphere. The pressure chambers used were steel bombs of about 900 cc. capacity, each connected to a Lindemann electrometer. Observations were made in a balloon near Warsaw on a windless day at heights between 6000 and 10,000 m., the pressures varying from 380 to 207 mm. Hg. The measurements were made with a N₂ ionization chamber and then with a Kr chamber. The simple law of proportionality between ionization by cosmic rays and gas density was found at the heights where the measurements were made; the soft component strongly prevails. The data obtained show that, contrary to the results of Juillié and Masueh (C. A. 31, 2921), the mechanism of the ionization is the same for particles of the hard and soft components of the cosmic rays. The ionization curve obtained by the authors is much steeper than that of Kolhorster. No discontinuities were found in their observations, and thus they conclude that in the atmosphere there exist no radioactive bodies of terrestrial or extra-terrestrial origin. Louis Waldron

AFW 52-A METALLURGICAL LITERATURE CLASSIFICATION







SZCZENIOWSKI, SZCZEPAN

Fizyka doswiadczałna. [Wyd. 1.] Warszawa, Państwowe Wydawn. Naukowe.
[Experimental physics. 1st ed. illus., col. plates, diagrs., graphs,
index]
Vol. 4. [Optics] 1954. 372 p.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 4, No. 12, December 1955.

SEZEROWICZKI, S.

"Antiferromagnetics."

Postepy Fizyki, Vol 5, No 2, 1954, p. 153

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

SZCZENIOWSKI

SZCZENIOWSKI, S.

Influence of the ideas of Copernicus on the development of physics, p. 239.
(POSTĘPY FIZYKI, Warszawa, Vol. 5, no. 3, 1954.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, Jan. 1955, Uncl.

SZCZENIOWSKI, Sz.

Fizyka doswiadczałna, Państwowe Wydawnictwo Naukowe, cz.III, Elektryczność i magnetyzm, 1955 s. 559

Explaining Physics - Part III, Electricity & Magnetism
SO: Technologia Ropy, 1955, Wrocław, Unclassified.

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735.64
.T6

POLAND/Nuclear Physics - Installations and Instruments.
Methods of Measurements and Research

C

Abs Jour : Ref Zhur - Fizika, No 8, 1959, 17225

Author : Szczeniowski, Szczepan

Inst :

Title : New Facts Concerning Elementary Particles and Their
Significance to the Problem of Structure of Space-Time

Orig Pub : Studia filoz., 1958, No 5, 52-80, 195-196, 204-206

Abstract : Survey article.

Card 1/1

- 23 -

PHASE I BOOK EXPLOITATION

POL/3819

Szczeniowski, Szczepan

Fizyka doświadczalna, Część 5, 1: Fizyka atomowa (Experimental Physics, Part 5, Vol. 1, Atomic Physics) Warsaw, Państwowe wyd-wo naukowe, 1959. 385 p. 5,200 copies printed. Errata slip inserted.

No contributors mentioned.

PURPOSE: The book is an introduction to atomic physics for general readers with a scientific background. It may be used as textbook in schools of higher education.

COVERAGE: The book on atomic physics is Part V, Volume 1 of the series published under the general title "Fizyka Doświadczalna". The book consists of seven sections which treat, successively, the system of natural elements, the properties of x-rays, photons in radiation, atomic spectra, the structure of the atom according to Bohr, the spectra of multielectron atoms, electron spin, the Pauli exclusion principle, x-ray levels, wave properties of matter and the waveline interpretation of the atom, and the physical properties of molecules. There are 17 tables and 248 figures. No personalities are mentioned.

Card 1/6

SZCZENIOWSKI, Szczepan, prof.dr.

Impressions from a stay in Japan in connection with the international conference on magnetism and crystallography. Problemy 18 no.8:556-568 '62.

1. Kierownik Katedry Fizyki Teoretycznej, Uniwersytet A.Mickiewicza, Poznan, Kierownik Katedry Fizyki Ogolnej B, Politechnika, Warszawa, Zaklad Ferromagnetykow, Instytut Fizyki, Polska Akademia Nauk, Warszawa.

SZCZENIOWSKI, Szczepan

General characteristics of studies on magnetic properties
of thin ferromagnetic films. Zesz probi nauki Pol 25;23-
28 '63.

1. Department of Ferromagnetics, Institute of Physics, Polish
Academy of Sciences, Poznan.

MISIEWICZ, Janina i współpracownicy: BATYCKI, W.; BURACZEWSKI, O.; GACKOWSKI, J.;
GURTAT, B.; KOBIERSKA, H.; KOZAKOW, H.; KRZYSZKOWSKA, A.; KURYLOWICZ, W.;
KUZNIECOW, A.; MULLER, H.; RAFINSKI, T.; ROMANOWSKA, I.; SITEK, K.;
STOPNICKA, M.; SZCZEPANAKI, W.; SZUSTROWA, J.; WIERZBOWSKA, M.;
WIKTOROWICZ, J.

Early results of vaccination against tuberculosis with vaccines prepared
from four different BCG strains. I. Gruzlica 25 no.3:243-250 Mar 57.

1. Z Instytutu Gruzlicy w Warszawie Dyrektor: prof. dr J. Misiewicz.
Adres: Warszawa, ul Płocka 26.

(BCG VACCINATION, statist.
comparison of 4 strains (Pol))

SZCZEPANEK, K.

Address book of the palynologists of the Soviet Union. Wiadom
botan 6 no.2:188-189 '62.

WIECKOWSKI, S.; SZCZEPANEK, K.

Assimilatory pigments from subfossil fir needles (*Abies alba* Mill.),
Acta soc. botan Pol 32 no.1:101-111 '63.

1. Laboratory of Plant Physiology, Jagellonian University, Krakow.
and Laboratory of Paleobotany, Jagellonian University, Krakow.

SZCZEPANEK, Kazimierz

Interglacial flora at Nidzica, Olsztyn Voivodeship.
Przegl geol 10 no.11:609-611 N '62.

1. Katedra Systematyki i Geografii Roslin, Uniwersytet
Jagiellonski, Krakow.

SZCZEPANEK, Kazimierz

The history of the late glacial and holocene vegetation of the
Gory Swietokrzyskie Mountains. Acta palaeobot 2 no.2:3-44
'61.

SZCZEPANEK, Kazimierz

Late Pleistocene flora from Ustron on the upper Vistula River.
Kwartalnik geol 9 no.1:173-182 '65.

1. Department of Plant Taxonomy & Geography of Jagiellonian
University, Laboratory of Palaeobotany, Krakow. Submitted
February 9, 1964.

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Diagrams for the selection of the most favorable resistance in the
Swinburne arrangement for temperature error compensation in movable
coil millivoltmeters. p. 45.

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1, Zaklad Automatyki i Miernictwa Elektrycznego, Instytut Elektrotechniki.

(Automatic control)

WERNER, Jerzy, prof.; SZCZEPANIAK, Cezary, mgr inz.

Hydrostatic transmission in the automobile driving system.
Techn motor 13 no. 5/6: 154-158 My-Je '63.

1. Katedra Budowy Samochodow, Politechnika, Lodz.

SZCZEPAÑIAK, Cezary, mgr inz.

Axial forces in the hydraulic momentum converter. Techn motor 14
no. 6:165-168 Je '64.

1. Department of Automobile Design, Technical University, Lódz.

SZCZEPANIAK, E.

"Comparison of methods of computing frame fibrations." p. 372 (INZYNIERIA I BUDOWŁ
NICTWO, Vol. 9, no. 11, Nov. 1952, Warszawa, Poland)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress

August 1953, Uncl.

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SOURCE PAVLAK, EDMUND

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*Dynamic Equilibrium
of Deformation of the Middle Surface
of a Plate Subjected to an Arbitrary
Load*

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5"

SZCZEPANIAK, E.

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SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October. 1957. Uncl.

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MOSZYNsKA, B.; SZCZEPAñIAK, K.

Influence of temperature on the width of some tetrachloride Raman
lines and the calculation of the time periods of the relaxation of
orientation. Bul Ac Pol mat 8 no.3:195-201 '60. (EEAI 9:11)

1. Instytut Fizyki Doswiadczałnej, Uniwersytet, Warszawa i Katedra
Fizyki, A, Politechnika, Warszawa. Presente par A.Jablonski.

(Carbon tetrachloride)

(Spectrum analysis)

(Raman effect)

(Titanium chlorides)

(Tin chlorides)

SZCZEPANIAK, K.

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1. Department of Physics A., Technical University, Warsaw.
Presented by A. Jablonski.

SZCZEPANIAK, K.; TRAMER, A.

Charge-transfer theory of hydrogen bond and infrared spectra
of chloroform complexes. Bul Ac Pol math 13 no.1:79-83 '65.

1. Department of Physics "A" of Warsaw Technical University
and Institute of Physics of the Polish Academy of Sciences.
Submitted October 30, 1964.

Janusz Skrzekowski Stanislaw Szczepaniak
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Studies on amino nitrogen and potassium ions contents in filtrates
of Moreau's Brazilian BCG strains cultured on Sauton's synthetic medium.
Med. dosw. mikrob. 9 no. 4:359-367 1957.

1. Z Zakladu Chemii Ogolnej Wydzialu Lekarskiego A. M. w Lublinie.
Kierownik: I. Krzeckowska.

(MYCOBACTERIUM TUBERCULOSIS BOVIC, culture,
BCG Moreau's strain, amino nitrogen & potassium in
filtrates of cultures in Sauton's medium (Pol))

(NITROGEN, determination,
in BCG, Moreau's strain, cultivated in Sauton's
medium (Pol))

(POTASSIUM, determination,
same)

SZCZEPANIAK, Stanislaw

A modified method for the quantitative determination of amino acids with ninhydrin in effluent from the chromatographic column. Ann. Univ. Lublin sect. D 19:303-310 '64.

1. Katedra i Zaklad Chemii Ogolnej, Wydzial Lekarski AM w Lublinie (Kierownik: doc. dr. Irena Krzeczkowska).

SZCZEPANIAK, Stanislaw

Determination of the exchange capacity of cationites by means of the
flame photometer. Ann. Univ., Lublin sect.D 16:263-273 '61.

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w Lublinie Kierownik: doc. dr Irena Krzeczkowska.
(CATION EXCHANGE RESINS) (PHOTOMETRY)

SZCZEPANIAK, Zenon

Calculation of vaults of wall linings in dog headings. Gornictwo
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PODGORSKI, Kazimierz, dr inz.; SZCZEPANIAK, Zenon, mgr inz.

Contribution to the problem of mining thick coal layers in
protecting pillars of pit shafts. Gornictwo Gliwice no.12;
63-83 -04.

MALINOWSKI, S.; BASINSKI, S.; SZCZEPANSKA, S.; KIEWLICZ, W.

Kinetics of aldolic reactions in gaseous phase on solid catalysts with basic character. Pt. 2. Bul chim PAN 12 no. 3:149-153 '64.

1. Institute of Organic Synthesis, Polish Academy of Sciences, Warsaw, and Department of Organic Technology I, Technical University, Warsaw. Presented by T.Urbanski.

SZCZEPANIAK, Tadeusz, mgr

Employment organization of longshoremen in western European
seaports. Tech gosp morska 12 no.9:254,261 S '62.

1. Wyższa Szkoła Ekonomiczna, Sopot.

"APPROVED FOR RELEASE: 07/13/2001

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SZCZEPANIAK, Zenon

State of stresses in the corners of junctions of underground
galleries. Gornictwo Gliwice no.7:99-118 '63.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5"

SZCZEPANIAK, Tadeusz, dr; KUZMA, Leopold, dr

Concentration of the production potential of the sea ports;
remarks on the concept of building a new maritime port near
Koszalin. Tech gosp morska 13 no.1:5-7 Ja '63.

1. Wyzsza Szkola Ekonomiczna, Sopot.

SZCZEPANIAK, Tadeusz, dr

Employment stabilization of longshoremen in seaports of
capitalistic countries. Tech gosp morska 13 no. 7/3;204-205
Jl-Ag '63.

1. School of Economics, Sopot.

POLAND

SZCZEPAÑIAK, Walenty, dr.

Department of General Chemistry, University (Katedra Chemii Ogolnej
Uniwersytetu im. A. Mickiewicza), Poznan.

Warsaw, Chemia analityczna, No 6, November-December 1965, pp 1199-1203.

"Diphenylcarbazide resin. Part 6: Selective binding of Hg^{2+} ions
with the diphenylcarbazone form of the sel-k5 ion exchanger."

S/081/63/000/003/007/036
B144/B186

AUTHORS: Lewandowski, Anzelm, Szczepaniak, Walenty

TITLE: Selective ion exchangers. II. Ion-exchange resin specific for bismuth

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 132, abstract 3G104 (Chem analit. (Polska), v. 7, no. 3, 1962, 593-597 [Pol.; summary in Eng.])

TEXT: From m- and p-cresol, CH_2O and nicotine an ion-exchange resin was synthesized which was called *sel-K-4*. The inorganic cations absorbed by *sel-K-4* from acid solutions are washed out easily by 1 N solution of HNO_3 or HCl, or by 2 N H_2SO_4 . In the presence of KI, Bi occurs in the form of BiI_4^- and can be washed out neither by 2 N HNO_3 solution nor by 4 N HCl solution. This peculiarity of Bi is used for separating it from mixtures with other cations. A mixture is passed through the column with *sel-K-4* (height of layer 30 cm, particle size 0.1 - 0.5 mm) at a rate of 1 ml/min. This mixture contains 2 ml of the test solution with 1 ml 2 N KI and Card 1/2

S/081/63/000/003/007/036

Selective ion exchangers. II. Ion-... B144/B186

7 ml 1 N HNO_3 (in the presence of Pb^{2+} the volume of the 2 N KI solution added is increased to 8 ml). To remove the other ions, the column is washed with 200 ml 1 N HNO_3 or HCl, then 25 ml 2 N NH_4OH (to decompose Bi_4^+) and 75 ml water are passed through it, and Bi is washed out with 1 M H_2SO_4 solution. This method is used to separate Bi from Pb, Sn, Zn, Mg, and Fe. The experimental error is ~2.5%. For the previous communication, see RZhKhim, 1960, no. 12, 47112. [Abstracter's note: Complete translation.]

Card 2/2

SZCZEPAÑIAK, Walenty

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1. Department of General Chemistry, Adam Mickiewicz University,
Poznan.

LEWANDOWSKI, Anzelm; SZCZEPANIAK, Walenty

Ion exchanger specific for titanate ions. Chemia stosow 7
no.4:603-608 '63.

1. Katedra Chemii Ogolnej, Uniwersytet im. A. Mickiewicza, Poznan.

SZCZEPANIAK, W.

The Opole Electric Motor Works, Factory "M-6" in Brzeg, an
important producer of electric motors of fractional power.
Przegl techn no.25:7. Je '62.

SZCZEPANIAK, Witold, mgr., inz.; KAWCZYNSKI, Leszek, inz.

Motor Equipment Plant in Sedziszow Malopolski, Przegl mech
20 no.19/20:612-613 '61.

1. Zaklady Sprzetu Motoryzacyjnego, Sedziszow Malopolski.

TARCHALSKI, B.; SZCZEPAŃSKA, Włodzimierz

Role and importance of coloring of textiles. Przegl wlokienn 16 no.4:
196-199 Ap '62.

1. Centralne Laboratorium Przemyslu Bawelnianego, Lodz (for Tarchalski).
2. Zaklady Przemyslu Barwelnianego im, F. Dzierzynskiego, Lodz (for Szcsepaniak).

SZCZEPANIAK, Wlodzimierz

Dyeing rayon fabrics by the Pad-Steam method. Przegl wlokiien 16 no.4:
224-227 Ap '62.

1. Zaklady Przemyslu Bawelnianego im. F. Dzierzynskiego, Lodz.

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5

SZCZEPANIK, M.

"Drawle" (Wood-cutters), by M. Szczepanik. Reported in New Books (Nowe Ksiazki), No. 15, August 1, 1955

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5"

SZCZEPAÑIK, R.

0 July 3

667465 : 66274 : 667452,1-211

Szczepanik R. Isomeric Monomethylnaphthalene

"Izomeryczne monometylnftaleny". Przemysł Chemiczny, No 4, 1953,
pp. 211-216.

A brief survey of the progress made in research over the fractionation of high-temperature coal tar, and of the methods of separation used in the coke by-products industry. Review of the more important publications concerning the isolation of 2-methylnaphthalene from coke tar. Results are quoted of the research carried out by the author over separating, from high-temperature tar, the fraction of isomeric monomethylnaphthalenes, as well as over the isolation from this fraction of 2-methylnaphthalene and 1-methylnaphthalene and over the purification of 2-methylnaphthalene separated from it. Emphasis is laid on the essential difference between the results obtained by the methods of isolating monomethylnaphthalenes from coal tar as described in literature and those obtained by the author.

8-30-54
gfp

EE 11 - M. R.

Szczepaniuk R. Isomerlo Monomethylnaphthalenes. Part II. Research over the possibilities of using suitable fractions of petrol as the azeotropic factor for naphthalene.

"Izomeryczne monometylonaftaleny. II. Badania nad możliwością zastosowania pewnych frakcji nafty jako czynnika azeotropującego dla naftalenu". Przemysł Chemiczny, No. 5, 1953, pp. 203-271, 10 figs., 8 tabs.

A short survey is given of investigations on the application, as the azeotropic factor for naphthalene and 2-methylnaphthalene, of suitable fractions of petrol. Description of determination of azeotropic ranges of naphthalene in the presence of homologous series of aliphatic hydrocarbons, the relative isomers and related substances appearing in petrol.

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SZCZEPANIK, R.

6687385 : 531J23.917.3

Szczepanik, R. Isomeric Monomethylnaphthalenes. Part III. Petrol as azeotropic agent of naphthalene and 2-methylnaphthalene.

"Izometryczne izomeryzowane naftaleny. III. Nafta jako czynnik azotropujacy dla naftalenu i 2-metylnaftalenu". Przemysl Chemiczny, No. 6, 1953, pp. 315-321, 8 figs., 3 tabs.

Description of distillation of petrol as azeotropic agent with a sufficient quantity of naphthalene. The material balance of naphthalene is given (as compared with investigations in which the petrol fractions b.p. 200-220°C were used), for quantitative determination of naphthalene content by the azeotropic method. Experiments are described concerning determination of the lower limit of the azeotropic range of 2-methylnaphthalene in the presence of hydrocarbons of some petrol fractions, together with the relative isomers and related substances. An explanation is given of the reasons for deviation in results when determining the real and approximate lower limit of azeotropic ranges of naphthalene and 2-methylnaphthalene in the presence of petrol hydrocarbons as a complex azeotropic agent.

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SZCZEPA NIK, R.

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698.536.3 : 511.423.917.3

Szczepanik R. Isomeric Monomethylnaphthalenes. Part IV. Azeotropic method of determining naphthalene in coal tar.

"Izomeryczne monometylonaftaleny. IV. Azeotropowa metoda oznaczania zawartości naftalenu w smołce węglowej". Przemysł Chemiczny, No. 7, 1953, pp. 375-379, 2 figs., 2 tabs.

A description is given of the process of removing and separating -- using a suitable petrol fraction as an azeotropic agent -- naphthalene from the fraction of isomeric monomethylnaphthalenes of coal tar oil. Also discussed is the technical application of the method of obtaining the naphthalene-free fraction of isomeric monomethylnaphthalenes, and for determining the content of naphthalene and of the fractions of monomethylnaphthalenes in coal tar.

SZCZERBANKA R

POL

Isomeric monomethylnaphthalenes. I. 2-Methylnaphthalene from high-temperature coal tar. R. Szczerbanka
Promyl Chem. 9, 211-18 (1953) (English summary). --The fractionation of high-temp. coal tar and the isolation of 2-methylnaphthalene (I) are discussed. Since naphthalene and I form an azeotropic mixt. with some petroleum hydrocarbons and since high-temp. coal tar does not distil as an azeotropic but as a polyazeotropic mixt., some petroleum fractions were used as the azeotropic factor in the isolation of the naphthalene fraction from the oils and in the sepn. of naphthalene from the isomeric fraction of I. With this azeotropic method for distg. coal tar, (1) all naphthalene was sepd. from the coal tar; (2) and 1-methylnaphthalene (II) formed azeotropes with the acidic and basic components of the oils and were isolated in neutral oil, which, when distd., gave 2 fractions, one contg. more than 80% of I and the other more than 40% of II; (3) I could be crystd. directly from neutral oil; (4) impurities contg. S could not be sepd. from I even through several crysts.; and (5) the imported I contained a fair amt. of S compds. II. The possibilities of using some petroleum fractions as azeotropic agents for naphthalenes. *Ibid.* 263-71. --The petroleum fraction b, 161-243° was isolated on a lab. column. To 403 g. of this fraction 250 g. naphthalene and 100 g. petroleum b, above 260° were added, and the mixt. was distd. on the large lab. column, with the speed of distn. and the degree of deflagration being the same as in the distn. of petroleum alone; the yield was 610.5 g. and the loss 12.5 g. Conclusions: (1) Naphthalene formed pos. azeotropes with this hydrocarbon fraction beginning at 190°, (2) the upper level of the azeotropic range was approx. 230.5°, and (3) naphthalene distilled azeotropically with hydrocarbons above 230.5°. The azeotropic range, as detd. by using the method of titrimetric addn., was 197-231° or 1.6 degrees greater than that detd. by using the distn. method given above. The method of distn. and the app. are described. III.

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R. Syczenowik

Petroleum as an azeotropic factor for naphthalene and 2-methylnaphthalene. *Ibid.* 315-21.—To 489 g. of a petroleum fraction (90% b. 200-20°, 5% 120-200°, and 5% 220-22.5°) was added 100 g. naphthalene and 100 g. petroleum b. above 250°. The mixt. was distd. on a lab. column. In this distn., called demaphthalization of petroleum, in which a small amt. of naphthalene was used as compared with the amt. of petroleum, the naphthalene increased to a max. at about 214°; above this temp. the amt. of naphthalene decreased rapidly, and at 217.5° petroleum distd. alone. All the naphthalene distd. b. low its boiling temp. Distn. of 285 g. of a petroleum fraction b. 200-44.5° with 25 g. of pure I $n_D^{20} \approx 1.6060$, showed azeotropy beginning at 219°. IV. Azeotropic method of determining naphthalene in coal tar. *Ibid.* 375-9.—Since the upper level of the azeotropic range of naphthalene coincides with the lower level of I, a petroleum fraction b. below 214° was used to minimize the possibility of azeotropic distn. of I, naphthalene, and higher-boiling fractions of the azeotropic factor. A petroleum fraction b. 197-214° was distd. off, and 12% of naphthalene by wt. was dissolved at 0° and filtered on the Büchner several times until the crystals disappeared; this azeotropic factor contained 7% naphthalene. To obtain a neutral oil, the crude oil was rinsed several times with 15% NaOH, then with 15% H₂SO₄, and finally with H₂O. The H₂O traces were sep'd. from the oil by azeotropic distn. with C₄H₈. The oil was then treated with azeotropic factor, distd. to 214°, treated again with the azeotropic factor, and again distd. to 214°. This procedure was repeated until naphthalene ceased to crystallize from the distillate at 0°; the distn. was then carried out above 214°. I and II distd. in the range 239-49°. The content of I, naphthalene, and II were detd. in several oils by azeotropic distn., and found to be higher than those given previously on the basis of older detns. V.

R. Szczepanik

Determining the approximate content of 2-methylnaphthalene in the fraction of isomeric monomethylnaphthalenes isolated from coal tar. *Ibid.* 478-84.—I and II form a eutectic system with each other. Impurities in the monomethylnaphthalene fraction were sep'd. by crystl. of I from neutral oil in MeOH at -50° and -70° , i.e. below the eutectic point of I and II. The residue after crystl. comprised about 9% of foreign matter. Since some of this matter formed eutectic systems with I, the crude fraction probably contained at least 10% impurities, mostly S compds., I purified by crystl. from MeOH contained 0.2%, while purified by boiling with metallic Na only 0.005% S in the form of methylthionaphthene (III). The increase of the content of III in I did not lower the f.p. of this substance. The percentage of I in the fraction was approx. detd. from the difference between the compn. in percent of the initial oil and the compn. of the obtained crude I. The detn. is sufficient for technological use. VI. Investigation of coal tar as a source of an azeotropic agent for naphthalene separation. *Ibid.* 589-91.—Crude deasphalited naphthalene oil (IV) contained acidic components (cresols and xylenols); these components are important azeotropic agents with which naphthalene distils below its b.p. The compn. of IV varied with the kind of coal used, the method of distil. of the coal tar, and temp.; however, the variations in IV are not so great as to cause a variation in its distil. Crude IV, rich in naphthalene, was distil. in a 25-plate lab. column at 10 ml./10-12 min.; the degree of defugillation was 10:1. Four phases were distinguished: (1) acidic oils (80%, max. at $180-4^\circ$), small amounts of neutral and basic oils, and naph-

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R. Szczep. et al.

thalene at 174-200°; (2) naphthalene (15-60%) contg. also acid components (20-35%), and neutral and basic oils (16-25%), with which naphthalene distils exothermically below the boiling temp. of pure naphthalene at 200-22° (max. of naphthalene at 215-18°); above 216° the amt. of naphthalene decreases with increasing amt. of neutral oils and the appearance of I and II; (3) intermediate fraction, 222-37° with naphthalene as the major component at the beginning and I toward the end of this fraction; (4) the fraction of I distd. mostly at 236-41.7° together with II. Distn. of the same oil deacidified with 15% NaOH showed that (1) naphthalene appeared at 200-7.5°; (2) the max. amt. of naphthalene appeared at the boiling temp. of pure naphthalene; (3) only $\frac{1}{4}$ of the total amt. of the naphthalene in oil distd. up to 218°; (4) there was no borderline between the naphthalene and the I fraction. VII. Investigation of separation of crude fraction of isomeric monomethylnaphthalenes on the technical apparatus. *Ibid.* 10, 46-65 (1954). —The mother liquor from the naphthalene fraction and IV, both rich in the monomethylnaphthalenes, were used in this distn.; 250 tons of oil were distd. with the yield of about 25 tons of a crude fraction of isomeric monomethylnaphthalenes. The app. consisted of a 40,000-l. distn. kettle, a distn. column with a diam. of 220 cm. with 40 plates, and a deflagration head. The modified Engler app. was used to control the boiling temp. The method of control of distn. and distn. itself, which proceeded similarly to that on lab. scale, are fully described. The speed of distn. was 700-60 l./hr.

Gene A. Wozny

SZCZEPAÑIK

POLAND/Chemical Technology. Chemical Products and Their I-13
Application--Treatment of solid mineral fuels

Abs Jour: Ref Zhur-Khimiya, No 3, 1953, 9224

Author : Szczepanik, R.

Inst : Not given

Title : Isomeric Monomethyl Naphthalenes. II. Investigation of the Possibility of the Utilization of Some Naphtha Fractions in the Preparation of Azeotropic Mixtures with Naphthalene. III. Investigation of Azeotropic Mixtures of Naphthalene and 2-methylnaphthalene with the Naphthenic Fractions. IV. An Azeotropic Method for Determining the Naphthalene Content in Coal Tar. V. An Approximate for Determining the Content of 2-methyl-naphthalene in the Fraction of Isomeric Monomethyl-naphthalenes Separated from Coal Tar. VI. Investigation of the Possibility of the Azeotropic Separation of Naphthalene from Coal Tar.

Orig Pub: Przem. chem., 1953, Vol 9, No 5, 263-271; No 6, 315-321; No 7, 375-379; No 9, 478-484; No 11, 589-

Card 1/2

Abstract: For Part I see RZhKhim, 1954, 20745. No abstract.

SZCZEPANIK, R.

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608-142-0173

Szczepaniak, R. Isomeric Monomethylnaphthalenes. 7. Research over Isolating Raw Fraction of Isomeric Monomethylnaphthalenes in a Technical Apparatus.

"Izomeryczne monometylnaptaleny. Cz. 7. Badaniu nad wydzieleniem surowej frakcji izomerycznych monometylnaptaleń na aparatu technicznej". Przemysł Chemiczny, No. 1, 1954, Blul. Nauk.-Bad. MPChem., pp. 46-55, 6 figs., 1 tab.

An investigation was made into the possibility of isolating the isomeric monomethylnaphthalenes fraction from high temperature coal tar in a technical distillation apparatus utilizing, as azeotropic agent to facilitate separation of naphthalene, mother liquor from the naphthalene fraction. It was established that the distillation gives directly the fraction in which the main component of crystallization is 2-methylnaphthalene.

(JW)

SZCZEPANIK, R.; SWIETOSLAWSKI, W.; GRUBERSKI, T.

From the investigation of acenaphthene fraction. p. 163. (PRZEMYSŁ CHEMICZNY, Vol. 10, No. 3, Mr. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol.3, No. 12, Dec. 1954, Uncl.

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Vol. 35, No. 13; Engle, IR Chem. Assoc. A method for studying the course of distillation of the coal tar oils is described. The method consists in measuring the temperatures of disappearance of crystals of the samples collected during the distillation and then recrystallized after recrystallization from methyl alcohol. The term "main distillation" is suggested for that component which disappears during the first distillation. The aromatic fraction was the main distillation.

Szczepanik, R.

POLAND / Chemical Technology; Chemical Products and Their Application, Part 3. - Treatment of Solid Combustible Minerals. H-22

Abs Jour : RZhKhim. No 14, 1958, No 47991

Author : R. Szczepenik.

Inst : -

Title : Fundamental Trends of Treatment of High Temperature Coal Tar.

Orig Pub : Przem. chem., 1955, 11, No. 10, 547 - 549.

Abstract : Basic information concerning the treatment of coal tar is presented, the economical importance of this question and the necessity of an additional refining of the coke-chemical industry products are emphasized. Bibliography with nine titles.

Card 1/1

SZCZEPANIK, R.

Basic rules of processing high-temperature coal tar. p. 547.
przemysl chemiczny. Warszawa. Vol. 11, no. 10, Oct, 1956

Source: East European Accessions List, (EEAL), Lc, Vol. 5, no. 2, Feb. 1956

POLAND / Chemical Technology, Chemical Products and H
Their Application, Part 3. - Treatment of
Solid Combustible Minerals.

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 62169.

Author : R. Szczepanik.

Inst : Not given.

Title : Fundamental Problems of Treatment of High-Tem-
perature Coal Tar in Poland. Part II.

Orig Pub: Przem. chem., 1956, 12, No 7, 358 - 363.

Abstract: Data concerning the production of coal tar of various kinds in Poland according to mean yields of all the possible products of high-temperature coal tar distillation at coal-tar chemical works, as well as the development of the coal tar treatment are presented. It was concluded in general

Card 1/2

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SZCZEPAÑIK, R.

POLAND/Chemical Technology - Chemical Products and Their
Application. Chemical Processing of Solid Fossil
Fuels.

H.

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, 36311

Author : Szczepanik, R.

Inst : -

Title : The Application of Heavy Oil for Azeotropic Separation
of High-Boiling Fractions of Coal Tar.

Orig Pub : Chem. stosoñ, 1958, 2, No 1, 51-108.

Abstract : The application of the postnaphthalene fractions of coal tar (CT) (the boiling range, 199-254°) in the capacity of an azeotropic means for the separation of naphthalene (II) from the high-boiling CT fractions was investigated. The feasibility of obtaining an additional quantity of N, a greater division of heavy fractions, as well as an yield of absorption oil, was demonstrated. The content of acids and bases was determined in the narrow CT fractions, and

Card 1/2

Development of the purification process of 2-methylnaphthalene with the omission of solvent. Tadeusz Sowa and Ryszard Szczepanik. *Chem. Stosowana* 2, 381-84 (1958).

The principles have been indicated for choice of purification methods and detn. of the degree of purity of 2-methylnaphthalene (I). Results of research are presented on detn. of contaminants in I obtained by the Polish method from the fraction of isomeric monomethylnaphthalenes by direct crystn. with the omission of solvent, as well as in imported I.

M. Markiewicz

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SZCZEPANIK, Ryszard; CZARNOTA, Irena

The influence of the main component of crystallization on the
solubility of naphthalene in the oils from the hightemperature coal
tar. Chemia stosow 4 no.1:53-80 '60. (EEAI 9:10)

1. Instytut Chemii Fizycznej w Warszawie
(Naphthalene) (Tar oils) (Coal tar)

SZCZEPANIK, R.,

Studies on the influence of temperature and infra-red rays and ultra-violet rays upon the aging process of road tars. Koks 6 no.5:182 0 '61.

(Tar)

SZALEPANIK, Ryszard

Binary and multicomponent liquid - solid systems formed by aromatic hydrocarbons, anthraquinone and fractions of coke tar. Chemia stosew 7 no.4:621-660 '63.

1. Katedra Chemii i Technologii Materiałów Budowlanych,
Politechnika, Warszawa.

SZCZEPAÑIK, Roman

Crystalline characteristics and light and their influence
on the aging of prepared road tars. Koks 8 no.5:177-184
S-O '63.

1. Szkola G³owna Planowania i Statystyki, Katedra Towaroznawstwa,
Warszawa.

SZCZEPAÑIK, Ryszard

Contribution and calculated influence of coke tar components
on the properties of crude tars prepared as adhesive plastic
materials. Chemia stosow A 8 no.3:321-343 '64.

J. Department of Chemistry and Technology of Building Materials of
the Warsaw Technical University.

S. S. LEVKOVICH, B.

Electrical Engineering 494.
Abst.
Section B
March 1954
Insulating Materials.
Insulators.

Utilization of insulating oils in power equipment. S. S. LEVKOVICH AND M. GORDA, *Energetyka*, 7, No. 4, 183-93 (1953) *In Polish*.

A review of types of oils and properties required for their application in transformers, circuit breakers, condensers and cables. Deterioration in service due to combined action of moisture and fibrous impurities is discussed and current methods for ageing resistance testing are compared.

J. TURKASZEWICZ

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5

SZOVETELIK, S.

1454. SEPARATION OF NAPHTHALENE IN COAL TAR DISTILLATION

Barbari, J. *J. Ind. Chem. (Chem. Ind.)*, 1953, No. 1021, 569; Abstr. in
"Trends in Coal Tar Distillation," p. 102, 1954, 10th International Congress on
Coal and its Derivatives, Paris, 1953.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654420004-5"

SZCZEPANIK, Z.

SZCZEPANIK, Z. Aparat wylegowy "Ink II." Warszawa, Panstwowe Wydawn.
Rolnicze i Lesne, 1952. 119 p. (The Ink II brooder)
DA Not in DLC

AGRICULTURE
Poland

So: East European Accession, Vol. 6, No. 5, May 1957

S/137/62/000/010/002/028
A052/A101

AUTHORS: Olszak, Feliks, Kozieliski, Jozef, Bialowas, Wieslaw, Makowski,
Henryk, Szczepanik, Zenobiusz

TITLE: A method of increasing nickel concentration in an iron-nickel
alloy

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 10, 1962, 23,
abstract 10G162P (Polish pat. no. 44838, July 20, 1961)

TEXT: The method consists in conversion of Fe-Ni alloy accompanied by a
partial slagging of Fe as a result of which the Ni concentration in the alloy
increases. Air or oxygen blast is used. The converter lining should be preferably
a basic one. In the process of conversion acid fluxes are added to bind Fe oxides
being found.

Y. Dozorets

[Abstracter's note: Complete translation]

Card 1/1

SZCZEPAÑIK-DZIKOWSKI, Zbigniew

5
S/137/62/000/011/002/045
A052/A101

AUTHORS: Bęczkowski, Włodzimierz, Deminet, Henryk, Dlugosz, Józef, Garba-
ciuk, Tadeusz, Gaska, Bohdan, Gaska, Zdzisław, Izbicki, Wacław,
Łuczak, Szymon, Maciesowicz, Roman, Morawski, Romuald, Szczepanik-
Dzikowski, Zbigniew

TITLE: Continuous furnace for shield annealing

PERIODICAL: Referativny zhurnal, Metallurgiya, no. 11, 1962, 10, abstract
11B56P (Pol. pat., no. 44895, September 21, 1961)

TEXT: A continuous vertical type inverted U-shaped furnace for shield annealing consists of corresponding heating through compartments with electrical heating. A chain conveyor with suspenders (or baskets) for annealed pieces passes through the furnace, whereby in the lower part of the furnace the conveyor passes through gates with attachments filled with a liquid (e.g. water). When the workpieces are charged the conveyor with suspenders sinks into the liquid and emerges already in the heating compartments. In its surface part the liquid is in a state near to boiling and the vapor produces the necessary shield in the

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Continuous furnace for shield annealing

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A052/A101

furnace. To stir the shielding atmosphere and to equalize the temperature, ventilators are installed in the middle of two branches of the furnace.

S. Glebov

[Abstracter's note: Complete translation]

Card 2/2

SZCZEPANKIEWICZ, E.; ZAMORSKI, J. (Wroclaw)

On close-to-convex and close-to-starlike functions. Roczniki prace matematyczne
6:141-148 '61.

1. Instytut Matematyczny Polskiej Akademii Nauk, Uniwersytet
Wrocławski.

SZCZEPANKIEWICZ, R.

"Airplanes on the Horizon; A Story." (To be Contd.) P. 602, "From The
Notebook of an Instructor in Airplane Modeling. 4." (To be Contd.) P. 604.
(SKRZYDŁATA POLSKA, Vol. 10, No. 38, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

SZCZEPANKIEWICZ, R.

"Airplanes on the Horizon; A Story. 2." (To Be Contd.) P. 622, (SKRZYDLATA POLSKA, Vol. 10, No. 39, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (HEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

SZCZEPANKIEWICZ, R.

"Airplanes on the Horizon; A Story. 3." (To be Contd.) P. 638. (SKRZYDLATA POLSKA, Vol. 10, No. 40, Oct. 1954, Warszawa, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Uncl.

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"Airplanes on the Horizon; a Story." (Conclusion) P. 654. (SKRZYDŁATA POLSKA,
Vol. 10, No. 41, Oct. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955 Unclassified.

SZCZEPANIKIEWICZ, STANISLAW.

Intensywnosc urzezbienia krajobrazu okolic Walbrzycha. Acta
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Vol. 6, No. 1 January 1957

SZCZEPANKIEWICZ, S.

"Development of the Valley of the Upper Bobrava River at the edge of a Glacier in the Sudetes." P. 122,
(*ZASOPISMO GEOGRAFICANE*, Vol. 23/24, 1952/53, Wroclaw, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3,
No. 12, Dec. 1954, Uncl.

SZCZEPANKOWSKI, E.

A conference of the rationalizers of the machinery industry in Poznan. p. 68.

RACJONALIZATOR. (Centralny Związek Spółdzielczości Pracy) Warszawa,
Vol. 6, no. 3, Mar. 1959.

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1. Krakow Observatory, Krakow.

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Acta astronom 9 no.1:46-47 '59.

1. Krakow, Observatory, Krakow.

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and UV Leonis. Acta astronom 12 no.3:200-205 '62.

1. Observatory, Krakow.

SZCZEPAÑOWSKA, A.

Geocentric ephemeris of the oppositions of the libration
points L₄ and L₅ in the earth-moon system for 1964.
Acta astronom 13 no.3:206-211 '63.

1. Observatory, Krakow.